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The Volunteer Review

AND MILITARY AND NAVAL GAZETTE.

A Journal Devoted to the Interests of the Military and Naval Forces of the Dominion of Canada

VOL. V. OTTAWA, CANADA, MONDAY, JULY 24, 1871. No. 30.

LESSONS OF THE DECADE APPLIED.

No. I.

BY A VOLUNTEER CAVALRYMAN.

(From the United States Army and Navy Journal.)

ACCOMPANYING the articles on cavalry, the publication of which was completed last week, is a second part, applying the principles laid down in the first part to squad, carbine, skirmish, sabre, and pistol drill, to horsemanship, troop, and regimental drill, lasso drill, and mitrailleuse practice. Without undertaking to publish this in detail, we propose to make some extracts from it, commencing with

SABRE EXERCISE AND TOURNAMENTS.

The sabre will be the ordinary Ames blade of the present United States pattern, to be issued as sharp as a razor from the factory. It will be worn in a scabbard of single black or brown leather, kept soft and supple and without any wooden lining. Near the mouth of the scabbard will be an outside sheath, to hold a small flat tablet of soapstone with a wooden handle to act as a whetstone. The sabre will always be drawn slowly and individually before exercise, and returned in the same way after it. It will be worn in a frog at the waistbelt, like the infantry sword, and not slung. In dismounted firing it will be taken out of this frog and left on the saddle in the same bucket provided for the carbine when mounted. At every halt after a long march, and every evening and morning, the sabre will be drawn and tested. If not sharp enough to cut hairs from the head or shave some off the bare arm, it must be carefully whetted until it will do so.

Dismounted sentries shall never mount guard with sabres drawn. Either they shall carry carbines, leaving the sabre in quarters, or they shall take it from the frog and carry it sheathed, and at the post (*cide post*). The point, whether bared or sheathed, shall never be allowed to rest on the ground.

Inspections of sabres and pistols shall be held daily, to keep both weapons in condition.

Officers should constantly impress on their commands the value of sharp sabres which will gash, even in the hands of a child, if kept like razors, and cut men in half at the waist in hands of soldiers of ordinary strength.

The men being perfect in drill, the instructor commands as follows, explaining and illustrating as he goes on. Attention to sabre exercise! *From the right—CORPS*

FOURS! Fours—Right! The movements are executed as in dismounted skirmish drill. The instructor then passes along the columns and designates the alternate sections as "right" and "left."

Returning to his post, he commands, "*Right and left—FILE!*" The alternate sections will file off in opposite directions, the instructor counting paces aloud. At five paces the last man of each file halts; at ten paces the next; at fifteen the next; at twenty the file leader, when the instructor commands, "*HALT! FRONT!*" when the odd sections pass to the front. The men are now stationed in a body, the breadth of a squad in line, and about forty paces deep, all under the instructor's eye, and having ample room to use their weapons.

The instructor now commands "*GUARD!*" One motion. At the word "*Guard*" carry the right foot two feet from the left, heels on a line, toes straight to the front, feet parallel. Bring up the left hand opposite the belt plate, and about six inches therefrom (bridle hand). Grasp the sabre fully with the right hand, and drop the flat of the blade on the left forearm, edge to the front.

NOMENCLATURE OF EXERCISE.

The hand can assume just two positions in fencing, *carre* and *terce*. All others are modifications of these two. When the back of the hand is turned to the right or down, leaving the nails up or to the left, the hand is said to be in *carre*. When the nails are down or to the right, the back of the hand up or to the left, the hand is in *terce*.

There are four kinds of sword movements, to be taught in the following order: 1, points; 2, cuts; 3, guards; 4, parries or moulinets. Each of these movements can be given on either side, and in *carre* or *terce*. The last three may combine both positions in two motions.

The instructor explains as above, and then commands, first illustrating the order

Carre—POINT!—Three motions. 1st. At the word "*Point*," place the hand against the breast, the sabre held horizontally, the edge up, the hand in *carre*. 2nd. Thrust out the end of the arm and draw back the elbow instantly to the first position. 3rd. Come back to guard.

(N. B. This point against right or right rear, not much use on the left. Best on right front. To be directed on all these points, the instructor explaining it as a fine but not a strong thrust.)

Terce—POINT!—Three motions. 1st. At the command "*Point*," carry the sabre, horizontally and edge upwards, opposite the right ear, the hand in *terce*. 2nd. Thrust

out to the end of the arm and instantly draw back the elbow to first position. 3rd. Come back to guard.

(N. B. The strongest point. Available all round the body. The men are cautioned to draw back the elbow on making the point, to avoid being disarmed in action.)

Carre and terce cut and—POINT!—Five motions. 1st. At the word "*Point*," extend the arm to the right rear as high as the head, hand in *carre*, the flat of the blade resting on right shoulder, edge to the right. 2nd. Cut horizontally from rear to front. At the end of the cut turn the wrist in *terce*, and bring the back of the blade to the left side of the neck. 3rd. Cut horizontally back again. At the end of the cut bring the sabre back to the *terce* point, by drawing back the elbow. 4th. Make *terce* point. 5th. Come back to guard.

Terce and carre cut and—POINT!—Five motions. 1st. At the word "*Point*," carry the back of the blade to the left side of the neck, the hand in *terce*. 2nd. Cut, and come to *carre* on right shoulder. 3rd. Execute *carre* cut and draw back the elbow to *carre* point. 4th. Make *carre* point. 5th. Come back to guard.

(N. B. The men must be cautioned not to let the hand turn so as to cut with the flat of the blade, a common fault. The first of these cuts is the most useful, as it ends in the strongest of points, a *terce*. The second is used if you can gain your adversary's left rear, as his defence is powerless against *carre* points at that time.)

Circle—DEFEND!—Three motions. 1st. At the word "*Defend*," carry the hand to the right front in *carre*, the sabre perpendicular, edge right front. Carry the guard along the whole right to the rear, turning the body to face right rear. 2nd. Turn the wrist, throw the hand above the head, and drop the point to the left rear, the hand in *terce*, the sabre protecting the left rear. Carry the guard along the whole left down to the left leg, and rise again to cover the horse's head, ending by clearing it and guarding the right leg. 3rd. Come back to guard.

(N. B. This guard is impregnable all round against cuts. It must be carefully taught.)

Carre—PARRY!—Four motions. 1st. At the word "*Parry*," raise the hand in *carre*, the body being turned toward the right, the elbow drawn back, the blade perpendicular, edge to the rear. 2nd. Describe a sharp quick circle from rear to front downwards, the back of the blade leading, returning to first position, and turn the body to the left. 3rd. Repeat the parry on the left side. 4th. Come back to guard.

Tierce—PARRY.—Four motions. 1st. At the word "Parry," raise the hand in tierce, being faced to the left, elbow drawn back, the back blade leading. 2nd. Describe a quick circle downwards, returning to first position, and turn the body to the right. 3rd. Execute the same parry on the right. 4th. Return to guard.

(N.B. Used against points of all kinds.)

The drill being over, the instructor commands: "Form—RANKS." At the word "Ranks," the file leaders on the instructor's side stand fast. All others march up alongside, obliquing to the left or right to do so. No. 1 shall in all cases be right of fours in line, and this will regulate the direction of the oblique. As the men come up they will sheathe their sabres immediately, carefully avoiding dimming the edge. They will then be taken back and dismissed.

SUPPLEMENT TO SABRE EXERCISE.

TOURNAMENTS.—As soon as the men have learned the cuts and guards with the sabre, tournaments should be instituted in troops and regiments as follows:

Each troop shall be divided into two parties, mounted and drawn up in line opposite each other, at fifty paces distant, counted in fours. The captain stations himself midway between the lines and commands:

No. 1 *right engage*—Gallop—MARCH.—No. 1 of each party, beginning at the right, starts at a canter, and engages his opponent on the right side, using an old blunted sabre, two of which are kept in each troop. Two helmets and a pair of steel gauntlets are also issued to protect the heads and arms of combatants from accident. The Captain watches them closely and counts the cuts and points as hereafter described.

After two minutes he commands, "*Break off*—MARCH;" when the men break off and return to their troop, each removing the helmet and gauntlet, to hand to the next man, along with the practice sabre.

The captain orders "NEXT," and so on to the end of the troop. The engagements shall be varied to left alternately, and cuts counted as follows, to include dexterous horsemanship:

Gaining the enemy's left rear, cut on on head, thrust in body, each counts ten. Cut on the arm counts five; cut in the leg counts two.

A cut on the horse's head loses twenty for the man who receives it, but counts nothing for the one who gives it.

The first sergeant attends the captain with a list, and marks the counts as the captain calls them to each man's name. If a man complains of his horse being refractory, and demands a change at the close of the lesson on account of his opponent's counting ten for a "left rear" he may be allowed to change horses and run one course, but if he fails to gain his adversary's left rear, he shall lose twenty marks. At the end of every six months, or at the opening of every campaign, silver medals shall be awarded to the best swordsmen in each troop. For the regimental tournaments only the silver medalists are competent. Their contests are limited to ten minutes, and a gold medal shall be given to the winner of the tournament, who shall be required to oppose with success six adversaries successively.

Any man not a medalist may enter on declaring his willingness to engage two medalists at once, but on no other terms.

All regimental tournaments will take place in a hollow square of the whole regiment.

(To be continued.)

THE VALUE OF UNIVERSAL TRAINING.

(From the London Spectator.)

We firmly believe that military training for a single year, or even for half a year, would elevate the British people more than any other change which could by possibility be introduced by legislation—would be equivalent in all good effects to five years of ordinary education. It would, to begin with, immensely increase their physical power. Twelve months of regular and full diet, perfect sobriety, and moderate work in the open air would increase the weight of ordinary town lads, by one-third, and of country lads by one-fifth, would widen their chests, strengthen their muscles, and induce that habit of health which town men find it so difficult to gain and villagers to lose. During that period they would learn to walk, to carry themselves, to obey orders and give orders promptly and quietly, to act in concert, and above all, to rely upon the action of their fellows. Cleanliness, self-respect, and self-restraint would become habits with the very lowest, and the first principles of civilization, order, mutual respect, and the possibility of self-sacrifice would be carried to the bottom of our society, to those classes whom all our efforts have hitherto failed to reach. All classes serving alike, the respect of all for each other must deepen, and, as we find in the volunteers, good feeling take the place of the suspicious dislike which arises only from ignorance. Every camp would be a school for the practical virtues, and there is no reason whatever why it should not also be a school for education in the ordinary sense. We should have got hold of the people at last, and might as reasonably insist on attendance at the evening classes as at the morning drill. If the system were wisely worked, as it would be, for the father of every lad instructed would be an elector, the lads, so far from losing anything, either in time or money, would go away far stronger, healthier, and abler, as much better fitted for the battle of life as an educated man is better fitted than a boor, yet without the effeminacy of habit which some men fear as a result of universal education. A man does not cart muck the worse because he has been drilled to walk instead of slouching, because he is a man instead of a lout; nor will he work less effectively at a trench because he understands how easily men can under certain rules be made to work together. The moral gain would be something indescribable. There is no reason whatever why such a camp should not be a well-ordered home, in which drunkenness, or unchastity, or insubordination would be as infamous as theft or cruelty now is. Tone can be spread in a camp as in a great school, and the wiser part of English philanthropy would concentrate itself on the county camps as its natural field.

The gain to the individual would be inestimable, nor would the gain to the State be less. The manhood of the kingdom would not, as in Prussia or France, be wasted in military service, but every man would be competent to defend the country, would understand what soldiership meant, would be in a position to decide whether the professional life would suit him. He would have lived the life himself under its best conditions, and the result would be, we feel certain, such a supply of "recruits" that the whole of our barbarous system might be swept away; the men enlisted, as officers are enlisted, for as long as they are willing to serve, and dismissal made, as in every other trade, a sufficient penalty for any offence not requiring the intervention of a magistrate. Even as matters stand, the diffi-

culty of getting men is one chiefly of our own creating. Eight shillings a week and "all found" would give us the control of the whole unskilled labor of the kingdom, and cost us less even than that we waste in the departments—would be in fact only £2,500,000 a year in wages for every 100,000 men and non-commissioned officers, a sum quite within our means. Imagine terms like those offered among a people who already know all the disagreeable part of a soldier's training, who would need nothing but practice to be solid soldiers! England would be as safe as Prussia and as powerful without a vast standing army, and without any new temptation to go to war. The military chiefs talk very wisely of the necessity for an elastic system; but what elasticity could be equal to an army of say, 100,000 men, which could be doubled in a week by the introduction of men individually as well trained as they need to be, twice as well trained for example, as two thirds of the men who followed Wellington at Waterloo, and which in the event of invasion, could only rely on successive draughts from the whole population.

But even in England, with our extravagant ways, the cost of an army fully equipped and ready for service ought not to exceed £120 a year per man, or six times the amount of wages given to the men themselves. Nothing but mismanagement, can bring it above that figure, and that allows £12,000,000 for the regular army. The country training schools, on the other hand, needing neither separate departments nor separate scientific services, ought not on the highest calculation, one even extravagantly high, to cost more than £20 a head for six months drill. That is to say, able administrators intent on thrift, if backed by the people and supported by an etiquette or a law postponing marriage to the mature age of nineteen, would give us a system of defence that would place England beyond menace from the world, that would make us once more a great power, and that would civilize instead of demoralizing the people for the very money we are now expending in order to accomplish so little.

It always affords us peculiar pleasure to record any incident connected with that glorious episode in the military annals of Great Britain—the defence of Canada in 1812-15. We give the speech of Colonel Jarvis and MacLean in reply to the toast of the "Army and Navy," with which the names of those gallant veterans were connected, on the occasion of the presentation of colors to the 59th Stormont and Glengarry Battalion of Active Militia, on Dominion day. Our readers will remember that Lieut.-Col. Jarvis has furnished the VOLUNTEER REVIEW with *remiscences* of the war; that it was at his suggestion "The Battles of 1812-15" were published in its fourth volume from the official reports, and that they are indebted for many valuable papers on military subjects to his pen. The same gallant heart beats beneath the judge's ermine as under the subaltern's scarlet, and the gallant comrades tell their story with the modesty so becoming in the true soldier. Lieut.-Col. Jarvis said:

"I have to thank you, Col. Bergin, and the gentlemen present, for the honor you have done the Army and Navy in drinking this toast so cordially and heartily. The Navy

does not now occupy the same position as it formerly did, for they have no competitors. England rules the waves, and they (the Navy) have not had the opportunity, for many years of meeting a worthy foe. The deeds of former years are still fresh in the memory of a grateful country, and on their behalf I thank you. The deeds of the British army are known in every quarter of the globe. In Europe, Asia, Africa and America, have their deeds of valor been written in letters of blood, never to be effaced from the memory of a grateful country. It always happens that the British Army are in the minority in point of numbers; they have always to contend with a foe superior to themselves. In the war of 1815, we never thought, unless, the enemy were three to one, we had any reason to be afraid of the issue. Notwithstanding all these difficulties, what great deeds have the not accomplished. They have stood against superior numbers on the rocks of their native Island firm and immovable. Englishmen, Irishmen, and Scotchmen, shoulder to shoulder carried the day at Waterloo. The same undaunted spirit made them conquerors in India, the Crimea, and Abyssinia. To have my name coupled with the British Army is too great a compliment. It is true that 59 years ago I entered the Militia of Canada as a volunteer, and served as private, corporal, and sergeant, and subsequently, in the month of September, I entered the regular army and served till I reached the rank of Lieutenant, when I was placed on half-pay, not willingly, but from heavy reductions that took place after the peace of 1815. Though I was present in all the actions that took place on the Niagara frontier, in the war of 1812 '13 and 14, yet I have no right to the great honor you have conferred in thus coupling me with that noble body of men. I may remark before I sit down, that out of about three hundred officers that I know during the war, only nine to my knowledge are now living one of these is Col. McLean, now sitting near me: Col. M. McDonnell, late Warden of the Penitentiary; Col. Gagy of Quebec; Col. Sewell of the same place; Col. Mathewson of Perth, and myself making up six out of the nine. The remainder are Colonel LeCoutre, now first Aide de-Camp to the Queen; Lieut-General Bill of the 8th Regiment, then a captain; and Sir Edward Morris of the 49th Regiment, now Lieut-General, then also a captain. You see, Sir, we have all attained in Canada to the rank of Lieut.-Col. upon which rank we have retired. I cannot sit down without remarking that I am still an honorary captain in your Battalion, having been elected to that position by the officers and men of No. 2 Company, by whom I was presented with a sword for my services in their formation. My three sons served in the same Company at the time of the Trent affair. One is now Captain and Adjutant of the 2nd, or Queen's Own Rifles at Toronto; the other is a sergeant in the Trinity College Company of the same Battalion, but will shortly resign, as he is now to be a soldier of the Cross. Unfortunately, my eldest son is incapacitated from further services by illness; he has attained the rank of Lieutenant, so that I and my family have all composed part of your Battalion. During the rebellion I raised four troops of Dragoons, and attained the rank of Major. Subsequently I was appointed Lieut.-Col. of the 1st Battalion Stormont Militia, from which I retired retaining my rank. I again thank you most cordially for the honor you have done me gentlemen (Cheers.)"

Colonel McLean said:—"I had no idea of

being called upon to make a speech, but I cannot decline when my name is coupled with that glorious British Army to which I had once the honor to belong. I am proud Sir, to be present with you on this occasion of which the counties had reason to be equally proud with yourself. I am now an old man, but I feel the spirit strong in me as when I volunteered in 1812, and when I, for many a day and night, patrolled the banks of the river; and if necessity should demand it, I feel that I would do fair service yet against the same foe. I feel proud of the Militia of Canada and of its history. No men ever behaved more nobly; and I look back with pride to the part I bore in it. I saw a good deal of service during the late American war, and was severely wounded at the first attack on Odgensburg, where we were repulsed, though thank God, I was able to continue my duty and take part in the second attack when we were successful. I was, after that promoted to a commission in the Regular service, and continued in it until the end of the war. Our Regiment was sent down to Newfoundland to recruit, and shortly after the war, was disbanded. It came to this country from England over six hundred strong, and when we were disbanded, we were only five officers, and not quite sixty men—not all of these were fit for service; and of the officers I am the only one alive. The militia of the present day, will I feel sure, emulate the Militia of that day should, unfortunately, the occasion offer, and I know, that these colors, Sir, will suffer no disgrace in the hands of the men of Stormont and Glengarry."

There is little fear with such a splendid record before them that the men of the present day will disgrace their predecessors. Judge Jarvis's address to the battalion is a model of its kind.

"I did not expect to make a speech on this occasion. I interpreted the resolution passed by the County Council inviting me to attend, as a compliment to a veteran who had seen some service in the war of 1812. I also put the same construction on your invitation, Col. Bergin; however, I never refuse to say a few words in favor of the Volunteers, but an unconsidered speech is hardly worth listening to. The Warden and Council have done themselves honor in conferring this honor on you and your Battalion—honor to the Council in encouraging the military spirit of our young Volunteers in the Counties, and honor to you and your Battalion for the zeal and efficiency displayed by you all since the formation of the corps. I have no doubt it will infuse a greater spirit into the minds of yourself and the officers, non commissioned officers and men, to attain to still greater efficiency. You will all resolve to defend these colors with your lives. No greater disgrace could befall a Battalion than to surrender their colors to an enemy. They are to serve as a rallying point in the hour of danger, and "foul fall him" who will turn his back on them at such a period. Remember that these colors are a sacred trust placed in your keeping—no enemy must be permitted to place a sacrilegious hand upon them. There is a feeling of veneration which every true soldier bears for the Colors of his Regiment—let that feeling be conspicuous in yours. I remember when the 2nd Battalion of the 5th Regiment, to which I was attached, in 1815, was reduced. There was a religious feeling manifested with regard to the destination of the Standards under which we had fought in Canada, and under which so many of our brother officers had fallen, and so

many had rendered up their lives in defence of the country. The Colors would be boxed up and sent to the agents in London, who would deposit them in the Horse Guards; they would never see the light again; they would be *coffined but not buried*; they would be eaten by moths,—some indignity might happen them. Better that they should be buried and their ashes committed to the ground, than thus dealt with. It was accordingly decided at the mess table, the last time we dined together, that they should be cut into strips, each officer to receive a strip, and the rest burned and buried in the parade ground, where the troops of the Garrison of Coleworth Barracks, at Portsmouth, would, for all time to come, at least till wars should cease, and the lion lie down with the lamb, pass over them in review order. They would at least be in *military ground*, and be guarded from disturbance. This was done, and the piece of the Regimental Color, which I now produce, formed a part of them. Permit me to relate another circumstance which took place at the battle of Lundy's Lane. Our Regiment was next to that of the 89th. The battle was continued from 3 p.m., of the 25th July, 1814, till late at night. A report came that the 89th were hard pressed by the enemy, and that their Colors were in danger of being captured. A message was sent to offer assistance, and this haughty answer was returned. "The 89th are able to defend their own Colors." This haughty reply would, I am assured, be returned by your Battalion under similar circumstances. "The 59th are able to defend their own Colors." These are circumstances of which I am personally able to certify, and I feel justified in relating them upon the present occasion." (Cheers.)

CANADIAN GOLD.—The Halifax Recorder publishes a statement showing the results of the gold mining operations in Nova Scotia for the first three months of the present year. Whether or not the yield is in excess of that of former years we cannot say, as no comparison is made in the figures. It is clear, however, that the work pays, and that the gold mines of Nova Scotia are of very considerable value. In the table before us, mention is made of ten districts in which mining is carried on. In these ten districts nearly thirty quartz mills are in active operation. During the first three months of this year there were crushed about 60,000 tons of quartz, yielding a total of over 5000 ounces, worth, in round numbers, \$100,000. In some instances the yield was very small, only a few grains to the ton; while in other instances it was as high as six or seven ounces to the ton. It is said that the mines are paying handsomely, in nearly every case, though the process of extracting the gold from the quartz is very expensive, and can only be carried on by companies having a large capital.

DEATH IN THE CAMP.—Many of our citizens will regret to hear of the death of Sergt. Dale, of the London Field Battery, which took place at the camp in Goderich yesterday morning at eight as related in the telegram of our correspondent. He was well known in this city in connection with the furniture warehouse of Mr. George Moorhead, and was highly respected for his amiable qualities. He has been for some time in delicate health, but yet felt quiet strong enough on leaving to encounter the hardships of the camp. One day last week, however, he was prostrated by sickness, and never rallied. His age was 25 years. The remains left Goderich yesterday morning for interment in St. Mary's.—London Free Press.

THE VOLUNTEERS.

To the Editor of the Globe.

SIR,—I deprecate the handling of militia matters in a political or partisan spirit. Our national defence, and the organization of our constitutional force for that purpose, should be common to all shades of political creeds, without distinction of party, and should be discussed without reference to party lines. It is difficult to carry out this important point in a newspaper argument or outside of the force; but I am proud to say that in the volunteer force, where "Fossil Tory" and "Clear Grit" elbow each other, I have never heard the question of politics raised, or the condition of party discussed, where the interests of the force were concerned. While I respect "Kanuck's" undoubted military attainments, I decidedly object to his manner of handling the subject. I object also to his defining the duties of chief officers in the selection of their staff. What we want is the *best men*, let them come from whence they will, and I feel sure that no Canadian volunteer will feel a jealous thrill at the mention of the names of McDougall or Wolseley. I have never had the honour of serving Her Majesty as a "subaltern" save in the volunteers, but I will not confess to any jealousy of those much-scorned "subalterns" when they are good men and suited from their education and antecedents to assist in promoting the efficiency and well being of the force, and I think it narrow-minded in "Kanuck" to confess to such feelings.

To come, however, to the consideration of the more important question. I hold that the "volunteer force" as at present constituted is not an adequate provision for the defence of the country. Putting aside the sentimental standpoint which the word "volunteer" affords, the common sense view of the matter is as follows:

Imprimis—It must be granted that every man, between certain ages, is liable to contribute towards the national defence, either by bearing arms himself, or, under certain conditions, by furnishing a substitute.

The present volunteer organization does not fulfill these conditions, for three vital reasons, viz:

First,—Because the burden is distributed unequally—resting on the few who have sufficient loyalty to offer themselves for this service, and who at the same time contribute an equal share towards the national revenue as do those who avoid or refuse to carry arms.

Second,—Because an adequate force for the protection of the country cannot be raised as volunteers. The volunteer spirit is confined to few in comparison with the arms-bearing population of the country. These few have, in many cases, served three or four times as long as required by law, and have thus deprived the country, in case of need, of the services of two or three trained men.

Third,—Because, where the voluntary principle exists, the burden of raising and keeping together a corps fall upon its officers, who are obliged to use conciliatory and popular measures, to the detriment of discipline and derogation of their position as officers in order to maintain their corps in an efficient state.

Many other reasons may be quoted. The privilege of leaving a corps at six months' notice for any trivial or fancied grievance. The question of uniforms, that is, the impos-

sibility of obtaining recruits to wear old or half-worn uniforms. The question of pay, which is inadequate for a *voluntary* service. The selection of officers, which must be guided at present rather by the influence than the efficiency of the man. The question of expense, which is at present a heavy burden upon the officers alone, and which should be sustained by the country which benefits by their services; and many other equally well grounded reasons, which space will not allow me to mention.

These evils have been long recognized by the officers of the volunteer force, and suggestions were made to the Minister of Militia on the passage of the Militia Act, from a meeting of commanding officers of corps, by which the constitutional force of the country would have been placed upon a proper basis. But for reasons which are inscrutable, he ignored the results of their deliberations; and only now consents to a step which, had it been taken at the time it was proposed, would have given the country a *real* army of 40,000 men instead of their shadows upon paper. Without for a moment decrying the force assembling at Niagara, Goderich, Kingston and Laprairie, I have no hesitation in saying that it was a sham, brought together by the exertions of the officers of the force, and which as soon as the camp was over would fall to pieces, and "like the baseless fabric of a vision, leave not a wreck behind." To outsiders this may seem a wild assertion, but in confirmation of its truth I appeal to my brother officers.

Briefly—as a cure for these ceaseless fictions contained in the annual reports of the militia, and which cause our system to be lauded by the English papers as worthy of imitation, but which, like their own, is rotten to the core, we want an *active* militia, to be raised by voluntary enlistment,—by voluntary enlistment and ballot—or by draft if necessary. Compulsory service of enrolled men for three years; at the expiry of that term to form the first-class reserve, retaining clothing and arms for that purpose; being discharged at the end of six years from further service, until the whole of the active force and first-class reserve are exhausted.

A direct tax to be levied upon all not actually bearing arms, for the support of the militia.

Twenty-one days' paid drill annually, seven days at company headquarters, at such times as are most convenient, and fourteen days in brigade-camp.

The appointment of none but qualified officers.

The establishment and training of an efficient staff, upon whose efforts and efficiency so much of the comfort and usefulness of the force depends. For this purpose a staff college should be inaugurated.

The organization and development of an efficient transport service, commissariat, medical and engineer staff, with the necessary equipment.

All this would undoubtedly cost money, but I have yet to learn that the Canadian people will refuse to sanction, to a properly devised, efficient, and trustworthy militia system suited to the constitution of the country, that aid which is necessary to carry it out in a creditable manner. On the contrary, the generous manner in which County Councils supplement the Government grants for these purposes, show that the loyalty and patriotism of the country is not at fault. It is when they see the mal administration, the nepotism, and inefficiency of the present system, that they cry out, and properly so, against the waste and mis-application of the public funds. Were the Minister of Militia to bring forward an adequate measure,

ignoring the remonstrances of the "moultens" who fear to be forced to take their share in the national defence, the spirit of the country would be with him, without reference to political tendencies or party platform.

I am, Sir,

Your obedient servant,

July 12, 1871.

CENTURION.

LITHIO-FRACTEUR.

During the late war the Germans destroyed the usefulness of many captured French cannon, which they could not carry away, by blowing off their muzzles. The explosive material used is called lithio-fracteur. A series of experiments lately conducted in England with this compound establishes its tremendous power and its comparative safety. The claim is put forward that it is absolutely harmless unless intentionally exploded, but experience will probably modify this claim. Lithio-fracteur is a patented compound, consisting of nitro-glycerine, gun cotton, the constituents of gunpowder, infusorial earth and other substances, and makes a white paste. A quantity of it was burned slowly both in the open air and enclosed, to show its safety from fire. A box containing five pounds was thrown from a height of five hundred feet and struck upon a rock. The cartridges were broken open and scattered, but did not explode. On the other hand, when exploded by a percussion fuse and cap, its power was tremendous. Placed on a block of stone in the open air a single cartridge, weighing less than two ounces, split off two large wedge-shaped pieces of stone. It was tried in quarries with very satisfactory results. Ten cartridges, weighing in the aggregate a little more than a pound, placed in a hole bored vertically four and a half feet deep, dislodged more than twenty tons of rock. The iron rails of the double headed pattern, four and a half feet long weighing seventy-five pounds to the yard, were laid one above the other on blocks of stone in the open air, and a cake of lithio-fracteur, weighing one pound five ounces, placed upon it was exploded. The rails were completely broken in two. The experiments were made to demonstrate the safety of the compound in transportation even when an accident occurs to a railway train. Two cartridges were fixed to the wooden buffers of a car, which was permitted to descend at full speed an incline of one in eight, nearly a third of a mile, striking with terrific force another car stationed at the foot of the incline. The concussion merely scattered the compound about the cars and rails, while it smashed the two cars to atoms. The same experiment was repeated with the use of iron buffers, and the result was a slight explosion which destroyed only a infinitesimal part of the lithio-fracteur and made a sound no louder than would be caused by striking a percussion cap with a hammer. Again, a quantity of the material was put upon the rails and the car passed over it at a frightful speed without injury. It seems to be settled by these experiments that the new explosive has at least some points of superiority over any other yet discovered.

MILITARY.—The Eardly Infantry Company arrived on the "Queen Victoria," having completed their term of annual drill at the Laprairie Camp. The Company numbered forty stalwart, strong, and hearty looking men, good samples of what our Canadian army is composed of. The majority of the company left for home on the 11th.

FOREIGN NAVAL AND MILITARY ITEMS.

Prussia is stated to have given out an order for two new ironclads of great strength but comparatively light draught.

The French Versailles Government having declared their inability to meet the payments exacted by Germany, the *German Correspondent* directs the attention of M. Thiers to the following reply addressed by the first Napoleon to his brother Joseph, who complained of his want of money, and urged Napoleon to have mercy upon Spain, and not entirely exhaust the country. Napoleon remarked: "Il se plaint de n'avoir point d'argent. Pourquoi n'en a-t-il pas? Il y en a en Espagne. J'ai tiré un milliard de la Prusse. Il ne m'aurait pas été difficile d'en tirer deux de l'Espagne. Allez."

It appears from the War-Office return that last year the British Government received £39,000 from the sale of commissions, and that amount has been placed to the credit of the military reserve fund. So small an amount has not been received for nearly twenty years. The total sum received since the operation of the plan, commenced in 1851, is £1,712,829. The fund is now and has been for many years past applied chiefly to buy up the commission of supernumery and half-pay officers, to reduce cavalry prices, and to reform the corps of Gentlemen-at-Arms and Yeomanry of the Guard.

The new British mutiny act contains one important alteration—section 2 is wholly omitted. This section provided for the branding of deserters with the letter D, and of soldiers discharged with ignominy with the letters B. C. (bad character.) Clause 117 of the Articles of War also deprives courts-martial of the power of marking men. This abandonment of a degrading punishment is the direct consequence of the reform. Henceforward, too, "any soldier may be tried for desertion without reference to the time during which he may have been absent;" and the time (twenty-one days' absence) which has hitherto distinguished "desertion from "absence without leave" is thus effaced.

May 4, a number of experiments were made from H. M. S. *Audacious*, stationed at Kingstown, under Lieut. Boyle, R.N., in the presence of the officers of the ship, several scientific gentlemen, and a number of ladies and gentlemen. The first torpedo, containing about eighty pounds of gunpowder, was lowered and exploded at a depth of twenty feet, causing the water to rise nearly fifteen feet above the level of the tide. The second machine, with a canister of twenty-seven pounds of the same quality of powder, had the effect of creating a revulsion of somewhat more than half the extent above named. The explosive power used was the pile battery, which is composed of zinc and copper plates, with flannel beds saturated in vinegar and water.

With reference to the reported failure of some experiments made with Captain Harvey's torpedoes at Portsmouth, the *Globe* says: "We feel justified in stating that these failures were owing to the employment of a very slow gunboat to tow the torpedoes. A good performance might as well be expected from a gun improperly mounted as from a torpedo improperly towed. No doubt the experiments which were so successful at Devonport would have failed had the vessel which was first proposed by the Admiralty been employed. It is really too bad of the Admiralty, in spite of the objections which

have been urged, to persist in using vessels whose defective speed renders them altogether unsuited for manœuvring with torpedoes."

The Berlin *Militair Wochenblatt* tells the following story of German strategy: "On the 5th of January, Rittmeister von Kaisenberg of the Fourteenth Uhlans was on the outpost at Bucquoz very near the enemy. Two companies of the latter going towards Alette passed so near that the vedettes were obliged to withdraw to the village. Kaisenberg then stationed a number of Uhlans behind a thicket and told them to fire rapidly with their pistols. The salvo was fired at a distance of 800 paces from pistols and one Chassepot gun, which was all the squadron then possessed. The enemy stopped—infantry they had not expected—and desisted from an attack, so that the squadron rested safely that night. The stratagem succeeded once, but its repeated success would be doubtful."

According to official accounts, without reckoning the capitulation of Paris, the report of which has not yet been published, the whole booty taken by the Germans during the war in France amounted to 120 eagles, flags, and standards, 2400 field guns, more than 4000 fortress guns; 11,669 officers and 363,326 men were detained as prisoners of war in Germany, besides whom the garrison of Paris, 170,000 men, surrendered, but were not taken to Germany; 84,000 French soldiers were interned in Switzerland, and 600 in Belgium. In the campaign of 1866, exclusive of the results of the capitulation of the Hanoverian army at Langensalza, 13 flags and standards, 208 guns, and about 49,000 prisoners were taken; while the entire captures made by the French army in the Italian campaign only amounted to 3 flags, 26 guns, and about 16,000 prisoners.

Professor Abel, chemist to the War Department, Royal Arsenal, Woolwich, has after a number of experiments succeeded in perfecting the new explosive agent recently produced by him under the name of "picric" powder as a means for charging shells, which, though it is not so violent in action as gun-cotton, nitro-glycerine, or picrate of potash powders, is a much more powerful explosive agent than gunpowder, and has other properties which appear to render it peculiarly adapted for use in shells. Its merits are that it may be readily and expeditiously prepared, and that it is remarkable for its safety as compared with all other explosive agents, being so much less sensitive to ignition by percussion than gunpowder. The president of the committee on explosives at Woolwich having pronounced the new powder worthy of further experiment, it will be tried under various conditions in order to ascertain its suitability to the requirements of the service.

Prince Bismarck recently spoke in the German Reichstag against a resolution calling on him as Imperial Chancellor to take more energetic measures to enforce the claims of Germany against Portugal, for a vessel illegally seized and condemned at Praia, a small port in the Cape de Verde Islands: "The German Government," he declared, "do not believe they require to exculpate themselves for declining to despatch iron clad to foreign ports for the purpose of backing reclamations of their subjects which are before the law courts of those countries. It requires nothing less than a firm resolution to turn everything to account that can be alleged against a government to approach it with not coming to the aid of its countrymen and clients by

threatening with its shells the judicature of another State, in an action that has lasted, if I may trust my memory, five or six years, and is not yet ended. Similar suits, in which our compatriots do not doubt that they are right, are pending in the courts of nearly every foreign country from America to Russia; if it were insisted that we should second every pretension advanced, by means of ships of war or battalions, we should have to go great lengths indeed."

A correspondent of the *World*, in a recent letter from Pesth, Hungary, says that a couple of months ago in Pesth one heard nothing but hatred expressed towards the Prussians and the new German empire, but now there is a complete change, and they are making all sorts of enthusiastic demonstrations in favor of the "hordes of Attila." What is the reason? The solution is probably to be found in the recent interchange of friendly sentiments between the Sublime Porte and the Czar of the Russias. As you already know, the Sultan has sent the most friendly invitation to the Czar to visit Constantinople on his way to Palestine. The Austrian papers are in a great state of alarm about this. The general argument appears to be that what Russia can't accomplish by arms she will accomplish by diplomacy, and the day which sees Alexander of Russia in Constantinople as the guest of the Sultan will also be the last day on which Austria may hope to have any influence in the East. Austria alone can do nothing; therefore she must conciliate the new Teutonic empire; but this idea seems to have occurred a good deal sooner to the ruler of the Russian empire.

THE THRONE OF FRANCE.—Two hundred years have elapsed since a son succeeded his father on the throne of France. It was in 1643 that Louis XIV. succeeded his father. Louis XV. Great grandson of Louis XIV. succeeded in 1715; and he, in turn, was succeeded in 1774 by a grandson. Louis XVI., who fell on the scaffold (with also in the same year, his Queen, Marie Antoinette) Louis XVII., titular King, remained in prison after the death of his parent, and there perished miserably at the age of 10. Napoleon Bonaparte died in bonds and exile, no son of his succeeding. Louis XVIII., brother of Louis XVI., was placed on the throne by the events of 1714—slipped off after Elba—and slipped back again after Waterloo. On his death in 1824, his brother, Charles IX ascended the throne, and reigned till 1830. Then came the Citizen King, Louis Philippe, (descended from a younger brother of XIV.,) who survived seven assaults on his life; and went off in an open boat in 1848, as "William Smith."

BIGGER STILL.—A new *Wellington gigantea* or "big tree," forty feet and four inches in diameter, has been discovered lately near Visalia, Southern California. This is thicker by seven feet than any other that has yet been found. A section of one of the "big trees," is now exhibited in Cincinnati, which is seventy-six feet in circumference and fourteen feet high; and, standing on the floor of the hall, it gives one a particularly clear idea of the enormous size of the tree from which it was taken. The section was cut last year in the Mariposa grove, about two hundred and fifty miles southeast of San Francisco, and far up the western slope of the Sierra Nevada mountains. It was divided and hauled a hundred and forty miles to Stockton, on three waggons by seventy yoke of cattle.

CORRESPONDENCE.

[The Editor does not hold himself responsible for individual expressions of opinion in communications addressed to the VOLUNTEER REVIEW.]

FROM MONTREAL.

(BY OUR OWN CORRESPONDENT.)

The Camp at Laprairie broke up on the 12th inst. Taking all in all there is no doubt but that the heavy expenditure has produced satisfactory results; the training in the way of drill and discipline was strict without being severe, the printed rules and regulations for the camp being carried out to the letter.

Some grumbling was occasioned by the non-arrival of the necessary quantity of blankets and tents at the first go off, and some little confusion was at first occasioned in procuring the requisite quantity of rations, the latter due to a great extent to the ignorance of regimental quartermasters of their duty; but the very best feeling and unanimity prevailed, and matters were soon regulated. The camp was evidently a great success, and many have been the valuable lessons thus taught to the volunteer that he might have remained in ignorance of for years. The staff and officers worked like Trojans, all impressed with the idea of making the most of the time; the hours of drill and exercise were strictly adhered to, and complete military discipline was established.

The men were peaceful, orderly, and well behaved, there was no drunkenness or riotous behaviour, no insubordination, and but few causes of complaint. Col. Osborne Smith and staff had personal supervision of the camp, and rode several times each day through it for personal inspection. The men settled down into camp life with cheerfulness, and though the whole thing was new to nearly all of them, they soon adapted themselves to their several positions.

The volunteers richly merited the deserved encomiums of Sir George Cartier, Sir Hastings Doyle, the Adjutant General and others; but there was noticeable, however, a great deficiency in drill, and even the sixteen days training hardly brought many up to the mark, they having yet a great deal to learn, and need a good deal of practice to enable the lessons they have been taught to be of any permanent benefit to them.

The health of the camp was excellent, little or no sickness, the only two deaths resulting from accident, one being shot accidentally and the other drowned.

A great improvement is yet needed among the officers, I allude chiefly to those of the country battalions; they are lamentably deficient in drill, some being even awkward and ungainly.

Officers appointed provisionally ought before the expiration of one year's service to be examined as to what they really do know, a regulation such as this would act as a stimulant to many, who knowing it to be compulsory would surely learn, and post

themselves up in something. Some of these officers are incapable of giving a word of command properly, and are less fit to lead a company than many of their own men. Another matter, officers should not be entitled to their grade till they are dressed accordingly; several carried no swords, and others only half dressed had uniforms by no means complete.

The Eardley Company was perhaps the best drilled and disciplined corps at the camp, they are a splendid body of men, and their movements are like clockwork in precision and accuracy; they everywhere got great praise, and the writer never saw movements better executed than by them. This efficiency reflects great credit both on themselves and their officers.

The brigade commanders, Cols. Charles King, Fletcher, and D'Orsonnens, materially assisted by their individual exertions in maintaining the discipline of the camp. Col. Harwood having left on sick leave soon after camp was formed, the whole duties of the brigade devolved on Col. D'Orsonnens, who was well equal for the emergency, and though he underwent a severe domestic bereavement, in which he had the sympathy of all who knew him, he never shirked his duty a day.

Capt. Stevenson's artillery proved their excellence, being well drilled and officered. Everyone would rejoice if the Government would do something towards providing horses for this splendid battery; the only one that Montreal possesses. The Cavalry, four squadrons, under command of senior officer Major Burwash, turned out very creditably.

The ground being excessively lumpy and uneven, they did not get fair play. Capt. Muir's No. 1 troop of Montreal Cavalry caused the greatest attraction. They are well uniformed, and mounted under such good officers as Capt. Muir, and Col. Lovelace it is no wonder they are thoroughly disciplined.

I must not omit to say a word of praise of Sergt. Thomas Boyes, who as staff orderly clerk performed his duties in such an admirable manner. He is by no means a new hand, and his long experience entirely fitted him for the position he occupied.

A word or two of censure might be said on the precipitate manner in which the men left the camp, without packing and delivering equipage and stores in a proper manner. Tents in many cases were bundled into sacks without little regard as to how they went in as long as they went, blankets were tied up in all sort of ways and manners, and the bundles had all to be re-opened by the camp quartermasters personally after the men had gone away and re-counted.

No fatigue parties were left behind to assist in handling and checking stores, and the regimental quartermasters generally rushed through the business in order to be off with their men. In the hurry and confusion instances occurred of tent bags filled

with straw, pin bags with old bottles and sticks being handed in, and from the Prince of Wales Regiment, several bags were returned crammed full of old shakos they had discarded for the new scotch caps furnished them.

There is no doubt but that a good deal of valuable experience has been acquired all around, and if next year we have another camp, the previous experience will be valuable.

Universal satisfaction was occasioned by the payment of the men before leaving camp. The arduous duties of Major Hyndman, and Capt. Brehaut, district paymasters, were performed in a thorough and efficient manner, and to the satisfaction of all.

The camp was not without its amusements, games, songs, social interchanges, races &c., filled up recreation time.

Major Hyndman assisted by camp quartermaster Battersby, Capt. Laurie and others gave a grand instrumental and vocal concert in the Town Hall, Laprairie village, the evening previous to the breaking up of camp, funds applied to charitable purposes.

The encampment at Laprairie had amongst others, this one excellent effect of making the volunteers, both rank and file, acquainted one with the other, and many were the social greetings and expressions of good will and friendship interchanged.

The encampment could not have cost the country less than \$120,000, and but few will doubt but that the money was well applied. What is now anxiously looked for is the draft, and the sooner we get it the better, it has got to come, being merely a question of time; the people must know that the government are in earnest in its endeavours to create a well disciplined and reliable militia.

At a meeting of the council of the Quebec Rifle Association held on Tuesday, it was decided that the annual matches of the Association should take place on the 15th of August, and succeeding days. Lieut.-Col. Fletcher, Major Worsley, Messrs. J. Esdaile, and George McDougall were appointed a sub-committee to make all necessary arrangements, and draw up a programme.

Sergt. Massey of the Victoria Rifles has been presented by his friends with a testimonial accompanied by an address setting forth his uniform kindness while in camp.

PERSONAL.—Amongst the Officers of the Active V. Militia Force, whose exertions have contributed to the success of the Laprairie Camp, the name of Major Hyndman, District Paymaster for No. 5 Military District, deserves placing on record. This very efficient officer by his courtesy and attention, has given general satisfaction, his prompt payment and settlement of all claims presented to him has been attended with the best results to the officers, non-commissioned officers and men of the different corps, with whom his duties have brought him in contact.—COMMUNICATED.

GENERAL ORDER.

HEAD-QUARTERS,
CAMP LAPRAIRIE, July 12th, 1871.

ORDER No. 1.

The Officer commanding the Camp at Laprairie desires to express to the officers, non-commissioned officers and men of the staff, and of the various corps composing it, his high appreciation of their good and soldierly conduct during the period of their encampment. He believes it is not too strong a statement to assert that no body of men of their numerical strength, (considerably over five thousand,) drawn together from so large an area of country, and composed of such a diversity of race and creed, ever encamped together with such an absence of crime and vice, or evidenced more amonability to discipline, and desire for instruction in soldiering.

The duties of the command, though, of course, arduous, were lightened by the unceasing exertions of the staff and of officers commanding corps, and it must be a source of gratification to them to know that by their aid one of the greatest difficulties, viz., that of the transport of the troops, not only to and from their respective headquarters to the Camp, but, on the occasion of the Review, from Laprairie to Montreal and back, was surmounted without a hitch or accident.

While thanking the officers of the permanent Militia Staff who attended the camp for their exertions, Lieut.-Col. Osborne Smith wishes also to record his sense of the valuable aid afforded him by those officers of the Active Militia Force who volunteered for duty on his personal Staff; to Lieut.-Col. Gillmor, of the 2nd "Queen's Own," and Lieut.-Col. McKay, of the Montreal Garrison Artillery, who respectively acted as Assistant Adjutant-General and Assistant Quartermaster-General to the Divisional Camp. his thanks for their valuable support are warmly tendered; Lieut.-Col. Moore, as Camp Quartermaster, and Capt. Kay and Lieut. Wicksteed, as Orderly Officers, were of the greatest assistance; whilst Major Dowker, as Supply Officer, has fairly earned not only the thanks of the Commanding Officer, but of the whole Camp. for his untiring exertions in carrying out his duties, rendered, on several occasions, by accidental circumstances, more than usually difficult.

It is much to be regretted that at an early period of the Camp severe and sudden illness deprived the Division of the valuable services of Lieut. Col. Harwood, Deputy Adjutant-General 6th District; the duties of his Brigade were, however, carried on in an energetic and soldierly manner by Lieut.-Col. D'Orsonnens, who succeeded to the command.

Although two fatal accidents (occurrences almost inseparable from large assemblages of troops) have to be deplored, it is a matter of much thankfulness, and of surprise, that there was not a single death from disease during the period of training, and that, with the exception of a few simple cases, sickness was almost entirely absent; this, in a great measure, must be ascribed to the assiduous conduct of the Medical Officers in carrying out sanitary measures for the prevention of epidemics.

In relieving the Officers and men from their duty at the Camp, the Commanding Officer desires to wish them most heartily farewell.

(Signed,) W. OSBORNE SMITH, Lt.-Col.
Dep Adjt. Gen. Militia No. 5 Military
District, Commanding Divisional
Camp at Laprairie.

CLIMATE OF THE LAKE REGION.

The climatic influences of vast bodies of salt water, like the Atlantic and Pacific oceans, have long been understood. The effect of small inland bodies of fresh-water in averting early autumnal frosts has also been generally remarked. But, as before intimated, meteorologists do not seem to have observed, till recently, that great lakes, like Lake Michigan and Lake Superior, exert an influence in deflecting the isothermal lines which is quite comparable with that exerted by the great oceans themselves.

These lakes, in truth, are no inconsiderable representatives of the ocean. Lake Superior is 460 miles long and 160 broad, with a mean depth of 988 feet. It has a superficial area of 32,000 square miles. The State of Massachusetts might stretch herself out at full length and bathe in its waters. Even then there would be room enough for Rhode Island at her feet and Connecticut at her head, with Vermont stretched along her right and New Hampshire on her left. You may take all New England, excepting Maine, and hide it bodily beneath the waters of this single lake. Lake Michigan is 360 miles long and 108 broad, with a mean depth of 900 feet and a superficial area of 20,000 square miles. You could sink in this lake the three states of New Jersey, Delaware, and Maryland. Lake Huron, with a length of 270 miles and a breadth equal to that of Lake Superior, has a mean depth of 300 feet, a superficial extent equal to that of Lake Michigan, and would swallow up the whole kingdom of Denmark, including the duchies.

You may embark upon a sea-worthy steamer at Chicago and travel for thirty hours without a sight of land; and after having passed the Straits of Mackinac, and entered Lake Superior, you may steam for two days more without reaching Superior City or Duluth. The voyage from Buffalo to Chicago around the lake is a thousand miles; from Buffalo to Duluth is eleven hundred miles, or three-fifths the distance from Newfoundland to Ireland.

The majesty of the tempest is little less on the lakes than on the Atlantic, and the low perpetual moan of the breaking waves along the beach transports the imaginative listener to Long Branch or Nahant. During a summer day they breathe, like the ocean, a cooling atmosphere on every shore, while at night the direction of the breeze is frequently reversed. These are our interior land and sea breezes. To complete the analogy, our great inland seas exhibit the fluctuations of a diminutive but genuine lunar tide.

It is impossible that such enormous masses of water should be materially elevated above the mean temperature of the year by three months of summer weather, or depressed materially below it by three months of winter. The land surfaces in the same latitudes attain far greater extremes of cold and heat than the lakes. Two reasons exist for this: First, watery surfaces absorb and radiate more slowly; and secondly, the continued stirring of the waters by the winds mixes the surface temperature through a depth of several hundred feet, while, on the land, the entire effect is confined to a superficial zone of about seventy to ninety feet. The normal mean annual temperature of the land in the neighborhood of Milwaukee is 44°, and this should be about the mean temperature of the water of Lake Michigan. In summer the Milwaukee mean rises to 57°, while in winter it sinks to 22°. The water of the lake, meanwhile, rises

in summer only to 46°, and sinks in winter only to 40°. Winds from the lake, therefore, partaking largely of the temperature of the water, must exert a material influence in equalizing the temperatures of summer and winter. Still more, in cases of extreme weather, when the land temperature rises to 95° or sinks to 30° below zero, must the ameliorating influence of such a vast body of water, holding itself steadily at a somewhat uniform temperature, be most conspicuously and most beneficently experienced.

There is one cause of the mild temperature of deep lake waters during the cold season, which probably has been very little considered. Lakes Michigan and Superior are nearly a thousand feet in depth. They reach down toward the internal fires a distance which, if measured through the solid crust of the earth, would bring us a very considerable increase of warmth. Upon the land the influence of climate changes does not extend, on the average, to a greater depth than eighty feet. Beneath this we experience an increase of temperature amounting to one degree for every forty-five feet of descent. According to this law the terrestrial temperature at the bottom of Lake Michigan should be increased eighteen degrees. Were there no mingling of the deeper and shallower strata of the water this increase would exist. This amount of heat, nevertheless—with some abatement to which it is not necessary to refer—distributed through the entire depth of the water, must produce no inconsiderable elevation of temperature in the general mass.

During the winter, therefore, Lake Michigan may be regarded as a great natural stove holding and radiating the heat absorbed during summer from the solar fires, eked out by an unfailling accession of heat from beneath yielded by the reservoir of igneous force imprisoned within the earth. When, on a stinging wintry morning, we behold the steam ascending from the whole surface of the placid lake, we witness an analogy to the vessel of water steaming over our household fires, which is more literal and more striking than we had dared to imagine.

Such vast and efficient compensators of climatic extremes, situated in the interior of continents, rescuing broad areas from the waste supremacy of summer heats and wintry frosts, seem like interpositions of Providence to adapt the world to the bodily necessities of its inhabitants. Such beneficent equalizers are all great lakes; and such, most strikingly, are those vast seas strewn through the midst of the lands which were the home of the earliest representatives of our race—the Mediterranean, the Black, and Caspian seas.—Prof. A. Winchell, in *Harper's Magazine* for July.

The great work undertaken by the city of Chicago some three years since of deepening the summit line of the Illinois and Lake Michigan Canal is nearly completed, and the water of Lake Michigan will soon run into the Chicago river, thence into the Illinois river, and so down the Mississippi to the Gulf of Mexico. One result of this improvement will be, a constant renovation of the Chicago river, heretofore so foul and unsavory, by a current of pure water from Lake Michigan. A further advantage will be an increased facility of navigating the canal. It is not expected that any perceptible lowering of the level of the great lakes will be effected the new outlet being of insignificant capacity compared with the Niagara river, which has never as yet sufficed to drain off the Lakes faster than they are filled.

THE
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THE VOLUNTEER REVIEW enters on the fifth year of its existence. When it was first projected fears were entertained for its ultimate success, as two efforts of a similar kind had been made and failed for want of support; but we are happy to say these fears were groundless, and that the VOLUNTEER REVIEW may now be said to be firmly established, thanks to the support it has met with from the hands of the Volunteer Force of the Dominion. It now circulates largely through Ontario, Quebec, New Brunswick, Nova Scotia, and even the new Province of Manitoba has extended its generous support. Nor is it confined to these Provinces only, but in the Mother Country, and even the United States it has subscribers and supporters. No other journal in the Dominion has so wide and extended a circulation as the VOLUNTEER REVIEW, and therefore it offers unparalleled facilities to general advertisers. Our terms for advertising will be found liberal on application, either personally, or by letter post paid.

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CLUBS of Five and upwards will be supplied at \$1.50 per annum for each copy.
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AGENTS.

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Mr. ROGER HUNTER for that of New Brunswick and Nova Scotia.
REMITTANCES should be addressed to DAWSON KERR, Proprietor VOLUNTEER REVIEW, Ottawa.

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TO CORRESPONDENTS:

All Communications regarding the Militia or Volunteer movement, or for the Editorial Department, should be addressed to the Editor of THE VOLUNTEER REVIEW, Ottawa.
Communications intended for insertion should be written on one side of the paper only.
We cannot undertake to return rejected communications. Correspondents must invariably send us confidentially, their name and address.
All letters must be Post-paid, or they will not be taken out of the Post Office.
Adjutants and Officers of Corps throughout the Provinces are particularly requested to favor us regularly with weekly information concerning the movements and doings of their respective Corps, including the fixtures for drill, marching out, rifle practice &c.
We shall feel obliged to such to forward all information of this kind as early as possible, so that it may reach us in time for publication.

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The Volunteer Review,
AND MILITARY AND NAVAL GAZETTE.

"Unbribed, unbought, our swords we draw,
To guard the Monarch, fence the law."

OTTAWA, MONDAY, JULY 24, 1871.

The Montreal Daily News makes this important announcement.—"It is confirmed that the Marquis of Lorne and the Princess Louise will arrive in Canada about the commencement of autumn and will visit the United States. Official notice of the visit is about to be sent to Washington, and it is said that the Prince Alexis of Russia will arrive at the same time."

The present period may be very justly called the period of shams. There is a sham patriotism which indulges in one ceaseless howl on the misdeeds of the party in power. There is a sham sentimentality which whines about the sorrows of the poor. There is a sham religion which consigns to eternal perdition every individual differing from the self-constituted elect. There is the old sham piety which discovers the mote in a neighbor's eye, but cannot perceive the beam in its own. There is a sham charity which seeks to avenge old grudges under the guise of public spirit, and a sham self-abnegation remarkable for a propensity to acquire the possessions of others. Individually these false pretences pervade society

to an alarming extent, but they are aggravated by being condensed and embodied in the newspaper literature of the day. The Universal Growler serves its readers to all those transparent humbugs under the semblance of patriotism, social order, morality, benevolence, and loyalty. Its columns are open to their incarnations through the purest of motives, and a very little acquaintance with the working of the system will show the end to be gained individually and collectively is the same, the governing motive being a close, clear and undivided attention to the interests of number one.

In humble imitation of its great prototype the Backwoods Grumbler pipes its mournful ditty on the decadence of public morality, the waste of public money, the extravagance of over-paid, over-fed, and bloated officials, the vast services, which could be effected if Mr. Brazenface and the copper bottoms were in power, and the terrible evils inflicted on society by their exclusion therefrom.

Barofaced and shameless as these pretences are they pale before the want of principle evinced in putting them before the public as serious subjects for consideration. A newspaper that opens its columns to the grievance and misrepresentation of every scribbler is guilty of a great offence against society, because it allows garbled statements for personal purposes to go before the people, misleading the public mind as to the true issues at stake. As far as mere party politics are concerned this would probably amount to very little either way—evils neutralize each other; but there are vital interests concerned in which the whole well-being of society is involved, and in relation to which misrepresentation is a downright crime.

The most delicate mechanism of a State is the relation the military element therein bears to the body politic. In other countries it has been and is the source of danger as well as safety to society. In Great Britain the evil has been neutralized by the actual separation from the civil element in society, and by the practical disfranchisement of the class set apart for military duty. Its army was thus a mere machine of the State for a special purpose, and beyond that it was not allowed to meddle. Dissevered from political life it was always since the revolution under control and knew nothing beyond its allegiance and duty.

In Canada we have got to solve the problem of the relations between the civil and military elements in social politics in a different manner, because we cannot afford to set apart a class of professional soldiers; with us the civilian of to-day must be the soldier to-morrow, with the absolute certainty of becoming the civilian again within a very limited period. A man inevitably belongs to some political party and will carry his prejudices to the trench. Nor will this make him the worse soldier, so long as

those feelings are permitted to run in the ordinary channels, but once allow those prejudices to be aroused by inflammable appeals to some party principle and the man becomes a danger to the State as well as to social order. Is it not therefore incumbent as a paramount duty on the press to refrain from discussing questions connected with our military organization in a partisan spirit?

There is one rule which should be steadily applied to all communications on military matters, and that is, to decline inserting anything calculated to effect discipline. A grievance stated in fair and gentlemanly terms always claims attention and merits regard, but where it is made the vehicle for senseless abuse of superior officers it demands contempt.

Judging from the number of communications on military affairs which have appeared in leading journals, the successful experiment of the camps of instruction has been pretty well criticised, and with one result—the utter inability of the would-be critics to find a vital error in the arrangements or the system. And it needs very little military ability to understand how totally incompetent they were to undertake the task.

It is hardly necessary to remind our readers that it is not yet three years since the Canadian army was organized; that no other country has tried the experiment of creating a military force by voluntary service; that the money placed at the disposal of the Minister of Militia did not exceed \$1,000,000 and that the House of Commons restricted expenditure with a rigid parsimony which left little chance of developing except by slow degrees the force to the proportions the importance and interests of the Dominion demanded; that its units are barely learning elementary knowledge, and that it is only by carefully watching its progressive requirements that it can be made a perfect organization adapted to the social condition of the country. Those who have closely studied this most interesting experiment are convinced that it is a wonderful success, that its trials have proved the truth of the principles on which it was founded, and that the much abused Militia Bill is in reality the best, most statesmanlike, and comprehensive measure ever devised for the organization of an armed people.

Within a month some 20,000 men have been under arms and encamped for a period of sixteen days. What are the complaints? It is not charged that there were deficient musters, or that the company drill was bad, the officers untrained or negligent, or the men without discipline. At one camp the "men did not learn something new every day," at another "they had sour bread," at a third "there was deficiency of blankets," because a greater force mustered than was called for. We think that under the circumstances the Canadian army is not totally disorganized yet. One gentleman abuses the Adjutant-General for a want of technical

knowledge—the latter being a soldier of the regular army of twenty-six years service, the critic being a Volunteer officer with the extensive opportunities attached to the position. Another, evidently being a hungry apothecary, starts off with a general condemnation of everything and everybody, including the Minister of Militia and the Adjutant General, and winds up his howl with a whine about the want of *jalap* and *squills*, the absence of which threatens the existence of the force, according to the warlike galley-pot. As long as fools are allowed to rush where angels fear to tread such nonsense is harmless. But its serious aspects are that leading journals espouse the views of these charlatans, and illustrates the sham theory by affecting to believe that the country is overburdened by its military system. One journal has it that the voluntary system is by far the best, but it should be better encouraged if necessary, of which it entertains grave doubts, being a faithful believer in Gladstone's millenium of peace. Another holds that it has failed altogether and must be replaced by the ballot. Like all extremes both views are urged without any consideration for the interests of the country or for false. The volunteer organization so far has stood every trial and met every requirement, but it may be matter for serious consideration whether the time has not come for calling out and training a larger proportion of the people than can be reached by the voluntary system. A very able letter on this subject has appeared in the Toronto *Globe* of the 14th instant, over the signature of "Centurion," and with the exception that he falls into the very errors he deprecates in others, that of treating the question "in a prejudiced manner." With a single misstatement he treats the real merits of the case so sensibly that we give it insertion in another column. It is much to be regretted that a portion of the officers of the force in Ontario should so far permit their unjust and unfounded prejudices to warp their judgment as to allow no opportunity to pass without disfiguring their "communications" with insolent remarks on the Minister of Militia, when their own chances of being remembered by posterity will consist of the not very reputable fact that they libelled one of Canada's greatest statesmen. Eratosthenes has had many imitators, from the style of "Centurion's" letter he should not be one.

With respect to the Volunteer force, it has been a good and effective organization. Under it more than double its numbers have obtained a fair knowledge of the use of the rifle and discipline, and it is not true that it is a mere paper force. Such assertions disfigure "Centurion's" letter, and one to be regretted on many accounts. The Militia Bill provides for any contingency which may arise, and if the Adjutant-General believes the efficiency of the force can be increased by the application of the ballot it will be for the interests of the country to

try it; but its operation must be general and no substitutes allowed. The grand principle to be kept in view is the fact of the necessity for a military force, and to make that effective every man capable of bearing arms should be trained. At the same time the interests of the country would be best served by leading journals abstaining from using so-called military grievances for political purposes, and refusing to recognize communications containing open or covert attacks involving direct breaches of discipline, encouraging its most dangerous enemies' disappointed ambition and personal egotism.

NEWSPAPER controversy is at all times a most unsatisfactory mode of settling any question, especially involving personal considerations. It is a course to which we never willingly resort, but as other parties are interested, in justice to their interests we must reluctantly reply to a letter which appeared over the signature of "Kanuck," in the Toronto *Globe* of the 14th instant, addressed to "The Editor of the Volunteer Review," in which the writer takes us to task for ascribing to the Adjutant General the organization of the Canadian Army, asserts that the Volunteer Review is an organ of that distinguished officer, tries to raise an issue between him and another distinguished soldier of higher military rank; asserts what is not true respecting our action towards both; charges the Adjutant-General with refusing to Volunteer officers a higher rank than Lieutenant-Colonel, and sets himself up as a fit and competent judge of the tactical knowledge of that distinguished soldier. It is quite useless for "Kanuck" or any one else to challenge a notorious fact of history. The Militia Bill became law on the 1st of October, 1868; under its provisions the present force has been organized, any previous organization was merely provisional. In ascribing to the Adjutant-General the credit of working out with rare skill and ability the provisions of the militia law, the Volunteer Review did not detract from the merits of any other officers, inferentially, or otherwise. But it is open to question whether the well-meaning efforts of over-zealous friends like "Kanuck" would not produce that effect.

And we beg leave to assure him that the Review is not the organ of the Adjutant-General, the Militia Department, the Minister, the Volunteer force, nor even of "Kanuck" himself, in the sense of being a tool in the hands of any individual. The conductors feel that a grave responsibility attaches to them, and that it is their duty to keep personal, ambitions, and local political issues from sapping the foundations of discipline in the force; that the interests of the country are before those of mere individuals, and that a writer who allows himself to speak contemptuously of superior officers is guilty not only of an error of judgment but, if a soldier, of a grave and unpardonable breach of discipline.

If "Kanuck" had carefully read the last "Report of the Adjutant-General on the State of the Militia," he would find it recommended that all the Deputy Adjutant-Generals should have the rank of *Colonel*, and whatever service those gentlemen belonged to formerly they are to all intents and purposes Volunteer officers. His letter on the whole is a mere carping criticism without any real or substantial basis, and harmless except for the *animus*. As the *Globe* has a large circulation it is calculated to give the public an untrue idea of the real facts at issue, and was one of the most weighty of the reasons which induced us to notice it at all. The question now arises as to "Kanuck's" capacity enabling him to pronounce judgment on the Adjutant-General's tactical abilities. It is well known that skill in that department of military knowledge is acquired by long practice alone. We have never yet heard or read of the "prize baby" whose first lisplings were words of command to deploy quarter distance columns into line, except perhaps "Kanuck" was that lucky individual; and until he can show that his term of service has been as long and continuous as that of the gallant officer whose conduct he so needlessly and severely criticizes, the Review will beg leave to demur to his conclusions, and as the Volunteer force could get only himself and "Galleypt" to exhibit the disadvantages under which it is alleged to suffer, the members must be very apathetic or well contented, and those gentlemen are only airing their own personal grievances. We would seriously advise "Kanuck" to remember the "Knight of the Rueful Countenance," in his celebrated essay of arms against wind-mills, and avoid a like fate. In the heyday of youthful impulsiveness a tilt against anything or everything is all very fine, but the mischief done must be considered, while the gallant Don may after all only be playing the roll of one of the Tooley Street tailors.

MR. CARDWELL'S Army Reform Bill has dwindled down under strong compulsion to the abolition of purchase; having obtained that with difficulty the Whig-Radicals appear to be in the position of the individual that won an elephant at a raffle, they do not know what to do with this good luck, it has become a regular nuisance. Already fears are entertained that the mode of appointment to commissions and promotion in the service will be open to far greater evils than ever in its worst time afflicted the purchase system. "Take care of Dowb" has been long a party cry; it is not, however, one Dowb the new system calls from the "vasty deep" of nepotism, but thousands. The pure and immaculate Whig-Radicals propose to make appointments to commissions in the regular army by *selection*, based on *confidential reports*. This monstrous proposition is too absurd for even the *Broad Arrow*, the sworn enemy of the purchase sys-

tem, to swallow, and it stand aghast, as well it may, at the prospects of the army in the near future. Confidential reports simply means a system of favoritism, espionage, neglect of merit, and every vice which can render the system to which it is applied rotten to the core. In future the higher ranks will be filled with the friends and relations of the party in power, the lower with all their parasites and tools. It is an eminent example of the beauties of Whig-Radical rule—powerful to tear down and destroy, but utterly powerless to clear away the rubbish, not to talk of reconstruction. Their folly and imbecility has made the problem of national defence one of the most difficult England has ever yet been called upon to solve; and with her superabundant population, immense resources, and insular position, it ought to be one of the easiest. Her army is a thing of the past, her navy is fast tending to the same end—her only hope is to get rid of the Whig-Radicals and arm her people *en masse*, allowing neither substitute nor exemption.

NEWS OF THE WEEK.

It is said that Sir F. B. Head, the well known Lieutenant Governor of Upper Canada during 1838-39, is the author of "The Battle of Dorking," a production that has damaged the Whig-Radicals more than their organs care to confess, and they have endeavored to counteract it by an *extravaganza* of a kindred description, in which the navy plays the principal part without a mistake of any kind. The Army Reform Bill has been sent up to the Lords, where it is supposed it will meet with stiff opposition, although Earl Derby has declared himself in favor of the abolition of purchase. This may not amount to a great deal because the Conservative party has not recognized him as its leader, and we have yet to see how the matter will end.

Mr. Foster has brought in his Ballot Bill, but the Liberals proposed so many amendments that Gladstone had to declare the government would stand or fall by it, a threat which at once brought them into line, —a fact which would go a long way to prove to our contemporary, the *Toronto Globe*, that there are *moutons* in other countries as in the Dominion.

The Crown Prince and Princess of Prussia have been on a visit to England. It is said that it has not been pleasant, the Lorne marriage probably having something to do therewith. H.R.H. the Prince of Wales and family are to pay a visit to Ireland, as also the Princess Louise and the Marquis of Lorne.

H. M. ship *Agincourt* has had a narrow escape, having been aground some hours on the Pearl Reef off Gibraltar; last accounts state she was got off after unloading guns, coals, etc., above 1000 tons. A fatality appears to be attached to those large ironclads —can it be possible that their great length

makes them unmanageable in a current and difficult to steer at all times? It is a disgrace to the mechanical science of the age that an effective and reliable steering apparatus is a desideration not yet attained. The *propeller* is not a perfect method of propulsion nor will it be till it steers the vessel by the same effort.

London mobs are getting unruly and will have to be put down ere long with a strong hand. The honest and hardworking man should receive all sympathy, but the scoundrels that prowl round great cities like London under that disguise merit chastisement and require the strong arm of authority to keep them in place.

Mr. Tom Hughes has been displaying his *Yankee-phobia* before some of his constituents, and above all places in the world, has selected Chicago, the modern Sodom, as the subject of his encomiums. His flattery has been so gross that even the United States papers cannot swallow it. But Mr. Hughes is one of a class unfortunately too common in England, whose slavish admiration of democracy is both the danger and disgrace of their country. Those people influence the press, and the utterances of the *Times* are a fair sample of what degradation they can stoop to. If they choose to swallow the traditional peckful of dirt at one meal and make it a bushel full it is their own business, and no one need trouble themselves about it.

The bullion in the bank of France has increased 7,000,000 francs since last week. The financial affairs of the country appear to be in a comparatively prosperous state, the national securities commanding a higher price than those of the United States for the simple reason that France has always honorably discharged her liabilities, neither permitting repudiation to be talked of or argued over as a policy.

Rioting is reported to have taken place at Nice, and the magazines at Vincinnes exploded with some severe but unknown loss of life, the result of carelessness.

Gambetta has taken his place in the chambers, and made his explanations. It seems he is a conservative—whatever that means. It is a pity that those irreproachable patriots did not use their exertions after the defeat at Sedan to support the Empress Regent, and save the country from the disasters which followed thereon. It is pretty certain that one and all intrigued with the greasy mob and its leaders till they were swept away by the Communist revolt. We may hope for the interests of humanity that France will be speedily not only reconstructed but resuscitated; but neither event will happen under Thier's rule.

There has been sharp debates in the Spanish Cortes on Cuban affairs. It is said 30,000 men will be sent out there to repress the rebellion, and this action is taken as an answer to the United States' offer of buying it. Hard on this comes the intelligence that the United States and British Ministers

at Madrid are both in London with Lord Granville and other Yankee worshippers in Council. It looks as if pressure would be applied to Spain in order to coerce a sale of the Queen of the Antilles, and that the Manchester School is to be made the tools in the transaction, having a natural aptitude for a bargain. Is this the inauguration of a new policy?

The people of New York are exercised just now over the 12th of July riots. It formed the text of the following Sunday's sermons—one of the preachers going so far as to say what was tantamount to the confession, that the slaughter of some 150 people was a cheap price to pay for the preservation of law and order. It will naturally strike the reader that the proper enforcement of law in the first place would have insured the order, without any such sacrifice. But the *peculiar institutions* of the United States prove themselves to be without law, and inapplicable to any settled state of society, and only to one which can right itself by occasional wholesale slaughter. The advocates of annexation had better take this little lesson to heart. Meantime the Irish element, so important and useful at elections, are brooding over their defeat, and doubtless take the earliest opportunity for vengeance. The news of the week may be condensed, as far as the United States is concerned, into the usual numbers of murders, stabbing affairs, lynching, shooting, and miscellaneous sensations.

The event of the period in the Dominion resolves itself into the return of the troops from Red River and the final disbanding of the last remnant of the Expeditionary force—men who deserved well of their country, and who would have received the thanks of the House of Commons if they had not in an evil hour allowed themselves to be made the tools of a party clique. On Friday the 14th instant, the last detachment of the force, consisting of 83 officers and men, under command of Major Wainwright, arrived in Toronto, and the final act of disbandment was consummated on the 19th. Surgeon Codd returned here on the 20th, and Quartermaster Armstrong on the 22nd.

The Camps of Instruction being for the present matters of history and their value being fully proved, the criticisms of the press shew, what the present system wants to make it perfect; but they also show a great deal that the soldier does not want and could not have in actual campaigning. For instance, what amount of transport would be required for a force that would allow every soldier two pairs of blankets, an india-rubber floor cloth to each tent, with a sufficient quantity of straw to make the men comfortable, or that would enable the soldier to have fresh eggs, butter and milk, with hot cakes for his breakfast. Yet those extravagances and worse are gravely detailed by country papers as requisites for camp life.

The Wimbledon team have been signalis-

ing their prowess in Scotland, from which they managed to take prizes of over £100. At the West of Scotland Artillery and Rifle Association's annual competition, which opened at Irvine on 23rd June, they managed to stand as follows: Small bore competition, June 26th, open to all comers, at 600, 800, and 1,000 yards at each. The second prize, a magnolia camp cooking stove, was won by James Adams, making 77 points, the highest being 79. And on June 27th, the Western Club Cup and prizes, to all comers members at 800 yards, seven rounds, the second prize of £5 sterling, was won by James Adams, making 26 points, the highest score being 27 points. The fourth prize of £2 sterling, by J. Mason, 26 points; the seventh prize of £2 sterling, by Lieutenant Wastie. At the Ross competition, at 800, 900, and 1000 yards, fifty rounds in each, of two days—Private Murison won the second prize of £5 sterling, making a total of 334 points, the highest being 394, out of a possible 500. At the match for the Eglinton Cup and prizes, 1,000 yards, seven shots, Lieut. Harris won the fourth prize of £2, making 22 points, the highest being 24, out of a possible 35; Sergeant Wilkinson winning the twelfth prize of £1 by 20 points. At the Association (any rifle) Prizes—200, 500, and 600 yards, Lieut. Wastie and Private Murison won the second and fifth prizes of £5 sterling each, by a score of 57 each, the highest being 58. Nine competitors tied at 200 yards for the range and ten at 500, having scored off the greatest number of points; on firing off the score stood as recorded—an instance of close firing unexampled. J. Adams, won a prize of £2 sterling being the tenth, with a score of 56 points. Those matches were any rifle not exceeding 10 pounds in weight. The next was a Snider Enfield competition—200, 300, and 600 yards—the President's prizes. Lieut. Wastie, fourth prize, £10 sterling, 47 points, the highest being 49; eleventh prize, Lieut. McNachtan, £4 sterling, 45 points. The Morrison Rifle, and other prizes—200 and 500 yards—the fifth prize of £2 sterling was won by Lieut. Harris by 35 points; the seventh, also of £2 sterling, by Jas. Adams, with a score of 30 points—the highest scored at the match being 36. At the match for the Stock and Iron Brokers' Cup—at 200 and 300 yards, twenty prizes at each range—Private Murison and Lieut. Wastie won the twelfth and nineteenth prizes respectively of £1 sterling each at 200 yards range by a score of 25 points each, the highest being 27 out of a possible 35; and at the 300 yards range Lieut. Harris won the sixteenth prize of £1 sterling by a score of 23 points, the highest being 26. This appears by the *Volunteer News* (to which we are indebted for the detailed account of the match) to have been all the matches open to the Canadians, and they have done very well indeed. They are encamped at Wimbledon separately, having declined the hospitality of the North Britons, which was gen-

erously tendered them, but declined on the grounds that the *barley breck* was too plentiful there.

The latest by telegraph states that the prizes of the Wimbledon rifle meeting have been distributed by the Princess Louise. Several representatives of the Canadian Volunteers were successful competitors, and have received their awards at the hands of Her Royal Highness.

The United States Government have asked permission of the Imperial Government for American fishermen to be allowed to fish in Canadian waters, on condition that all duties paid upon Canadian fish in American ports be kept account of and refunded in the event of the House of Representatives agreeing to the removal of the duties in question.

The London *Spectator* laments over the decadence of the monarchical system in Great Britain. It says:—"There is in this country but one great political institution left alive, and that is apparently endeavouring to commit suicide by asphyxia. The throne as a political power is dead, the Lords are dying, and if the House of Commons loses the respect of the country there will be nothing left."

Mr. Gladstone is trying hard to effect the latter laudible object, by inducing the Queen to cancel the Royal warrant, sanctioning the purchase of commissions; he has succeeded in over riding the Constitution—teaching the world a lesson not to be forgotten. A demagogue at the head of any government is sure to bring it into disgrace.

REMITTANCES

Received on Subscription up to Saturday the 22nd inst.

AMHERST ISLAND.—Lt.-Col. W. Fowler, \$4.
NORTH NATION MILLS.—Lieut. J. Eathorne, \$2.

PER AGENT.

MONTREAL.—Capt. Esdail, \$2.
PORT ROWAN.—Major S. P. Mabec, \$4.

The Montreal *Herald* states that it is the intention of the Quebec riflemen to challenge the Ontario Wimbledon team on the return of the latter from England.

LORD CAIRNS ON THE TREATY.—Lord Cairns, who is said to be the highest legal authority in England, in the course of his speech on the Treaty of Washington, said: "With regard to Canada, by the express provisions of the Treaty, the obligations of the articles relating to Canada are made to depend upon the question whether Canada in its Parliament will or will not ratify those articles."

THE TURKISH ARMY.—The Turkish War Department seems at length to have decided to make the Christian subjects of the Porte liable to military service as well as the Mahometans. Some idea of the importance of such a determination may be obtained from the fact that hitherto the yearly contingent of about 400,000 men has been supplied by 10,000,000 Mahometans, the remaining part of the population, numbering 20,000,000, not having contributed a single soldier to the Turkish army.

NEVER GIVE UP!

Never give up! it is wiser and better
Always to hope, than once to despair;
Fling off the load of Doubt's cankering fetter,
And break the dark spell of tyrannical care;
Never give up! or the burden may sink you,—
Providence kindly has mingled the cup,
And in all trials or troubles, bethink you,
The watchword of life must be, Never give up!

Never give up! there are chances and changes
Helping the hopeful a hundred to one,
And through the chaos High Wisdom arranges
Ever success,—if you'll only hope on:
Never give up! for the wisest is boldest,
Knowing that Providence mingles the cup,
And of all maxims the best, as the oldest,
Is the true watchword of Never give up!

Never give up!—though the grape-shot may rattle,
Or the full thunder-cloud over you burst,
Stand like a rock,—and the storm or the battle
Little shall harm you, though doing their worst
Never give up! if adversity presses,
Providence wisely has mingled the cup,
And the best counsel in all your distresses,
Is the stout watchword of Never give up!

REPORT ON THE RED RIVER EXPEDITION OF 1870.

BY S. J. DAWSON, CIVIL ENGINEER.

[CONTINUED.]

SHEBANDOWAN LAKE TO FORT GARRY.

Between the terminus of the Thunder Bay road, on Shebandowan Lake and Lake of Winnipeg, by the route followed by the Expedition, the distance, is in round numbers, 488 miles. In this distance are three sections differing materially in general character.

The first known as the Lake Region, commences at the end of the Thunder Bay road and ends at Fort Francis. The distance between these points by the route followed by the expedition which went round by Loon Lake to avoid the rapids on Sturgeon River, is 208 miles, and by the more direct route usually travelled about 190 miles. This section presents a continuous succession of lakes separated by short portages, except in one instance where there is a stretch of eleven miles of river sometimes called the Maligne. It was to the rapids in this stretch that I had sent a picked crew of voyageurs to be in attendance while the boats were passing and run them down. In all other places, the work to be done consisted merely in carrying supplies, and hauling boats from one quiet sheet of water to another. The aggregate length of the portages between Shebandowan Lake and Fort Francis is precisely three miles, and 76 chains; the two first are the longest namely Kashabiwe and Height of Land portages, and these are respectively three quarters of a mile and a mile in length. The other portages are very short only three exceeding a quarter of a mile and none extending to half a mile. Here then is the labour the voyageurs and soldiers had to encounter in getting to Fort Frances that is to say,—they had to get boats, ammunition, and 60 days rations, the latter gradually getting less, over three miles and 76 chains of land, and row or sail through some two hundred miles of water, where countless islands rendered the shelter so perfect, that the highest winds could not stop them, while the breeze would often fill their sails and relieve them from the toil of the oar. The weight of the boats varied somewhat, those of the Clinker construction being from 560 lbs. to 650 lbs, and the carvel from 850 to 950 lbs. With each brigade of six boats were from sixty-five to seventy-five strong men, voyageurs and soldiers, ten men were quite equal to drawing a boat across a portage, but the crews joined to-

gether and hauled them across with great ease. The baggage and stores gave the most irksome work to the inexperienced soldiers, but it did not last long at a time, and after the toil involved in getting across a portage, they were soon afloat and winding their way among labyrinths of islands.

Sometimes mistakes occurred on the lakes, more especially when the sails were hoisted.

The boats in tacking would leave the usual track and as new lakes opened up and unknown islands came in view, the guides would get bewildered and scarcely know which way to turn. A case of this kind occurred in the Lac des Mille Lacs, and I mention it to show how easy it is for the best guides to get astray in these island-studded lakes. A half breed Indian voyageur, who had been for many years in the service of the Hudson's Bay Company, and was supposed to know every nook and corner between Lake Superior and the Arctic Sea, came with a brigade of boats, to the lake just named. The wind was up, the sails were at once set and off went the boats dashing at great speed through the water, and leaving islands after islands behind them. The wind was nearly but not quite fair, and it would be a pity to change them from their track while they were making such speed almost in the direction they should go. At last they were put about, and the guide looked in vain for some point or island he should recognize. All was new to him. Time and again, the islands bounding the prospect were made for only to open up new vistas and lakes more bewildering than the last. This Lake is well named Lac des Mille Lacs. It is however the only one on the upper part of the route, which from its dimensions could admit of the boats going far astray, and in order to guard against the recurrence of such blunders, I stationed some Indians who have their hunting grounds in the neighborhood, at the Height of Land, so that they might be in readiness to act as pilots in this perplexing lake.

Much has been said about the barrenness and forbidding aspect of the Lake region, and no doubt it is in many places somewhat rocky, but not more so than the region of the Upper Ottawa, or the country intermediate between the Ottawa and the Georgian Bay. Timber, both red and white pine of fair dimensions is in unlimited abundance and in many places, especially on Rainy Lake, there are indications of valuable minerals.

Arrived at Fort Frances, the Expedition had before it 131 miles of unbroken navigation, ending at Rat Portage. First Rainy River, winding for 67 miles with a gentle current through forests of the most luxuriant growth, broken here and there by patches of green sward, where the Indians of former times had practiced the art of cultivation, so long forgotten to their descendants, and then the Lake of the Woods, where the course lay for 64 miles farther, through islands which, although the lake is large, afford sheltered channels where the stiffest breeze is hardly felt. There is however, a traverse of seven miles at the end of the lake where boats are sometime wind bound.

THE WINNIPEG.

On reference to the memorandum, on a preceding page, it will be seen that this river presents a series of lake-like reaches with short intervals of rapid water between them. It is in volume not inferior to the Ottawa—perhaps greater, after it receives its chief tributary the English River which joins it just above portage de L'Isle from the

east. Some of the navigable sections are like the Chats and Duchene Lakes on the Ottawa, differing only in the circumstance of being full of islands. This river has long been used as a highway for the boats of the Hudson's Bay Company, and the carrying places were found to be well opened and in good order. At certain stages of the water some of the portages are difficult of approach, but when the Expedition passed the water was low, and the worst places had quite lost their terrors. The distance from Rat Portage at the outlet of the Lake of the Woods to Fort Alexander on Lake Winnipeg is one-hundred and forty nine miles. The portages are numerous but short; their aggregate length at high water, amounting only to three miles and six chains. The water, however was so low when the Expedition passed that at several places, such as the Cave, the Seven Portages, and Silver much of the land carriage was avoided by keeping in the bed of the river and lifting the boats over rocky points. Upon the whole, the Expedition experienced no difficulty whatever on the Winnipeg. Guides had been obtained at Fort Frances and Rat Portage, where the Indians are numerous, and some few of the voyageurs, who had distinguished themselves, were sent back from the former station and their places supplied with Indians well acquainted with the route. I should mention that Mr. Boyd, a merchant in the Red River Settlement, and now a member of the Government of Manitoba, together with some other settlers, sent six Hudson's Bay boats to meet the Expedition. This afforded an opportunity of comparing these boats with those which had been provided in Ontario and Quebec, I have some satisfaction in saying that the latter proved to be the fastest sailers, the most easily managed in the portages and rapids and in every way the best adapted to the purpose of the Expedition.

From Fort Alexander to Lower Fort Garry (Stone Fort) the distance is 60 miles, and in this section there is no impediment whatever to the navigation.

The route, generally, between the terminus of the Thunder Bay road, Shebandowan Lake, and Lake Winnipeg, will compare very favourably with any other canoe or boat route of equal length in British North America. The entire distance is four hundred and eighty-eight miles, with some forty portages (more or less according to the stage of water) having an aggregate length of seven miles. Between these portages, the navigation, excepting for a few miles in a narrow brook at French Portage, is the easiest conceivable. There are no difficult rapids to run. In fact, except on the Maligne already referred to, and at a few places on the Winnipeg, as regards the facility of getting over them with boats or canoes, the rapids are the merest ripples.

The force, in getting through, had just seven miles of land carriage to get over with light boats, 60 days rations gradually diminishing, and their ammunition, and this in short sections, so far separated as to make the fatigue less than it would have been had the portages been longer and fewer in number.

The labor on the portages was, no doubt, trying to men unaccustomed to such work, but it did not last long at a time, and all besides was the smoothest sailing conceivable.

Let now, the route which could afford such easy transport be compared with other known routes of similar character, on which many Canadians are engaged in occupations involving the constant practice of work of the same nature as that which the Expedi-

tionary force had to perform, and first as regards the Ottawa, it is not necessary to refer to the time when articles had to be carted from Carrillon to Grenville, when voyageurs had to portage their canoes past the Chaudier and Duchene, struggle up the Chats Rapids, and toil for weeks in powerful whirlpools or on the long portages between the Cheneux and the Calumet, the labor involved in getting from the Joachim, the Upper limit of steam navigation, to Lake Temiscamingué a distance of a hundred and twenty miles is vastly greater than on the whole route to Red River,—a greater length of land carriage and rapids more powerful and difficult to overcome. But if the difficulties on the broad Ottawa are greater, how much more are they not so on its tributaries, the Gatineau, Madawaska, Coulonges or Petewawe. Hundreds, I may say thousands of adventurous lumbermen yearly find their way to the high regions drained by these rivers with boats and half a year's supplies besides.

The St. Maurice, is perhaps, one of the most difficult rivers on the continent, running down, as it does, directly across the strike of rock, from a plateau fifteen hundred feet above the level of the St. Lawrence and it forms a cazo in point as regards comparison for by this route a French Military Expedition passed, in former years to the Moose and down that river to Hudson's Bay with artillery and munitions of war. Two of their field pieces still remain on a portage at the source of the St. Maurice and history tells of their doings at Hudson's Bay, where they took and held forts, one of which was well mounted with artillery. Although no doubt greater things have been done in other ways, still this is of its kind a feat as yet unparalleled in military annals.

The Chevalier de Troyes had no boats such as were supplied to the Red River Expeditionary Force, and in his day the birchen skiff was alone used on the inland waters, between the St. Lawrence and Hudson's Bay.

As compared with the route by York Factory, the Line followed by the Expedition has many evident advantages, and in this regard, I may refer to a journey made from York Factory to Fort Garry by Col. Crofton in 1846. That gallant soldier, whose clear and comprehensive evidence given before a Committee of the House of Commons (England), in 1857, did so much to remove the veil in which an exclusive monopoly had shrouded the regions of the North West, came by York Factory to Red River, with 347 soldiers, 17 women and 19 children, in all 383 persons. Among his munitions of war were three six-pounders and one 9-pounder field piece. In his evidence, speaking of Fort William route:—I would undertake to take my regiment by it; and on being further questioned replied as follows:—

"I did worse than that, I took artillery from Fort York in Hudson's Bay, to Red River 700 miles, by the Compass, over lakes and rivers, and that is a much worse route than the other."

"Do you mean to say that under present circumstances (this was 13 years ago,) the route from Fort William to Fort Garry is a better route for military to go than from Fort York?—I am quite sure of it for I have gone both."

"Question by Sir John Packington—Did you say you took artillery from Fort York to Red River?—I did,

"What distance is that!—it is about 735 miles."

"How did you convey it?—We carried the guns in canoes, we took the guns off

their carriages, we had rope handles and carrying straps, and between them so carried the guns."

At that time the gallant Crofton formed the opinions to which he has given such forcible expression, steam had not reached Lake Superior, and the Thunder Bay road had not been dreamt of; still with experience of both routes, he considered it (the Fort William road,) vastly better than the route by Hudson's Bay.

One cannot but be struck with the marked difference in the circumstance, under which he made his journey by the one route and those attending the advance of the Expeditionary force by the other. In the one case were the ever frozen shores of Hudson's Bay, and soldiers, with artillery, and women with children to bring forward to an unknown land by a route till then untried by a military force. In the other, light boats, fitted with everything that could be conceived to be useful, and manned with active men in the very prime of life.

Women and children had to be protected from the chill blasts of autumn, as Colonel Crofton's band came upwards from the sea.

The soldiers of the Expeditionary force had to work hard enough at times, no doubt, on the portages, as they came to the successive falls of the Winnipeg, but they were soon again on open lakes with the soft winds of summer in their sails.

A quarter of a century ago Col. Crofton's soldiers could have had nothing to cheer them save a consciousness of doing their duty as they advanced. The land before them had been represented as sterile and shrouded for more than half the year in the gloom of a Siberian winter.

As the Expeditionary force went on, the soldiers knew that they were taking part in a movement to become historical, that they were, in fact, carrying the scepter of their Queen to a land of sunshine and fertility, and of proportions so vast that it might hold half of Europe in its lap.

(To be continued.)

The Ottawa *Free Press* inquires, "Is the period for the growth of Canadian pine gone by?" It says the following singular fact is noticeable in the backwoods of Canada. In every part of the country the pine forests that are being cut down throughout the Dominion are not being replaced by young timber. From personal observation and from conversations with lumbermen we noted the fact that young pine trees, from three to seven inches in diameter, are not to be found in the woods, no matter how thick the pinery is, or how favourable the soil appears to be for their growth. All other kind of timber indigenous to this climate are to be found in the forest, of all sizes, from the seedling to the full grown tree, but the pine, like the red man, is disappearing from the face of this country without any young stock to replace it. It is a question for scientific men.—Is the period for the growth of pine passed? There are young pine trees growing throughout the country but they are what lumbermen call sapling pine, and will always be short and scrubby, and the timber full of gum knots and sap and never worth cutting down. In the bogs of Ireland pine trees of immense size are often found embedded in the turf, and it is quite evident that it grew at one time in that island to considerable extent. Some few years ago, it was stated that at the time there were only two Irish pines growing in the country, two that were on a gentleman's estate somewhere in the south of Ireland; and they were fast going to decay.

THE WARS OF 20 YEARS.—About twenty years have elapsed since Queen Victoria opened the first great exhibition in Hyde Park. But the history of twenty years since then may have caused them, not unnaturally, to forget that on the 1st of May, 1851, was confidentially supposed at the time to mark the commencement of an era of universal peace. The commissioners, in their address to the Queen on that occasion, indulged in some neat remarks on the subject. Her Majesty was advised in similar language to express a hope that "the undertaking may conduce to the common interest of the human race by encouraging the arts of peace," and the Archbishop of Canterbury was so much impressed with the circumstance that he ventured, in the prayer that it was his duty to offer, to ascribe the universal peace to the direct interposition of the Almighty: "It is of Thee, O Lord, that nations do not lift up the sword against each other, nor learn war any more." If the primate could have seen the events of the next few years, we may assume that he would certainly have abstained from what even then was an inaccurate assertion and would have forborne to ascribe to the direct interposition of the Deity a momentary cessation in the intrigues and quarrels of the human family. Within two years and a half of the archbishop's prayer the first shot was fired in the Russo-Turkish war. Two years and four months elapsed before, on the 20th of February, 1856, hostilities were suspended. In a little more than a year afterwards, in March, 1857, the Bengal army mutinied, and it was not till the 25th of May, 1859, that the mutiny was entirely suppressed by Sir Hope Grant's final victory. A month before the Austrians had crossed the Ticino, and the French had commenced their brilliant campaign in Lombardy. From May, 1860, to March, 1861, Garibaldi was engaged in destroying the Neapolitan kingdom. Only a month afterwards the civil war commenced in America, which was only concluded by the surrender of Kirby Smith, in May, 1865. The summer of 1866 was memorable for the Austro-Prussian war; the autumn, of 1867 for the attack of Garibaldi on Rome. Last year's events are too fresh in our memories to need recapitulation. And it must be remembered that this category of wars does not include such as the Danish war, the Mexican war, our war with Persia in 1856, and with China in 1857, the Moorish war with Spain in 1860, and the insurrections in Crete and Poland, some of which we have omitted as synchronous with those wars we have instanced, and others because they are less likely to be permanently remembered by our readers. Such events as these ought surely to teach us that even when war seems most improbable, it may be very near us.—*Tall Mall Gazette.*

BREAKFAST.—ERSS'S COCOA.—GRATEFUL AND COMFORTING.—The very agreeable character of this preparation has rendered it a general favorite. The CIVIL SERVICE GAZETTE remarks.—"The singular success which Mr. Erss attained by his homœopathic preparation of cocoa has never been surpassed by any experimentalist. By a thorough knowledge of the natural laws which govern the operations of digestion and nutrition, and by a careful application of the fine properties of well selected cocoa, Mr. Erss has provided our breakfast tables with a delicately flavoured beverage which in any save us many heavy doctors' bills." Made simply with boiling water or milk. Sold by the Trade only in 1lb., 2lb., and 1lb. tin-lined packets, labelled—JAMES ERSS & CO., Homœopathic Chemists, London England.

Troubles with the Morant Bay "niggers" are again threatening in Jamaica, those peculiar pets of the broad brims are likely to cause what all Quakers profess to abhor—more bloodshed.



NOTICE.

SEALED TENDERS, addressed to the undersigned, and endorsed "Tender for Dwelling House," will be received at this office until Wednesday, the 19th instant, at noon, for the whole of the Artificer's work required in the erection and completion of a Dwelling House, for Superintendent of Cornwall Canal.

Plans and Specifications can be seen on and after Thursday next, the 13th instant, at this office, and also at the office of the Superintendent of the Cornwall Canal.

The Department will not be bound to accept the lowest or any tender.

By order,

F. BRAUN,
Secretary.

Department of Public Works, }
Ottawa, 8th July, 1871. } 29-2in.



SALE OF

UNION SUSPENSION BRIDGE TOLLS.

THE TOLLS of the Union Suspension Bridge at Ottawa, for the year commencing on the 1st of August, 1871, and ending 31st July, 1872, will be sold by Auction, at the Toll House, on Monday the 24th July, inst., at 3 1/2 o'clock, p.m.

CONDITIONS OF SALE.

The tariff of tolls is not to be increased over the present rates.

The tolls shall be put up at the upset price of \$3,500

The highest bidder complying with the conditions of the lease shall be declared the purchaser.

The price or rent of the tolls shall be paid as follows, viz., Five per cent of the purchase money down, as well as the Auctioneer's commission of 2 1/2 per cent, before the lease is executed, and the remainder after the execution of the lease in equal monthly instalments in advance, payable on the first day of every month, at the Office of the Collector of Inland Revenue in Ottawa.

The purchaser, before obtaining possession, shall enter into a lease for the year with two approved sureties for the due and prompt payment of the rent, and for the protection and safe keeping of the bridge, toll house, and all other property thereto belonging and connected therewith, and also that the bridge shall be kept clean and free from nuisances and rubbish of every description in the summer season, and during the winter season from snow, with the exception of not more than six inches in the roadway.

The lessee of the bridge shall have no claim on the Government for any encroachment or supposed encroachments on his privilege by any private individual, or in consequence of any Ferry or Ferries now, or which may in future be licensed, or in any other way.

Purchaser to pay the Auctioneer's commission.

A. ROWE, Auctioneer.

Department of Inland Revenue. }
Ottawa, 8th July, 1871. }

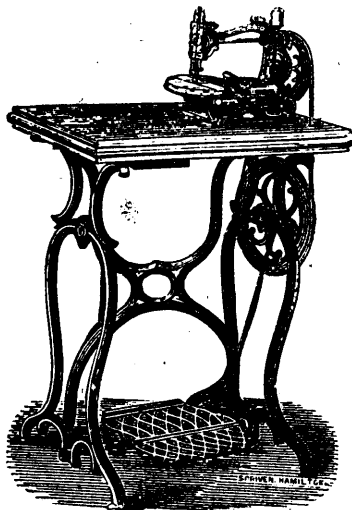
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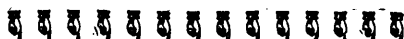
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F. BRAUN,
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Department of Public Works,
Ottawa, 22nd June, 1871.

22-31



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